

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (Currently Amended) A metal tube for use in furnaces where gas and liquid formed media is being pressed through such tube from its inlet end to its opposite end while being subjected to substantial heating and decomposition therefrom, the metal tube comprising:

a body;

a smooth outer surface; and an inner surface with a profile; wherein the body is made of a stainless iron-nickel-chromium base alloy comprising, in weight %:

max 0.08% C,

23-27% Cr,

33-37% Ni,

1.3-1.8% Mn,

1.2-2% Si,

0.08-0.25% N,

0.01-0.15% rare earth metals,

balance Fe;

and normal impurities; ~~and~~

the profile comprises a plurality of valleys or recesses, said valleys or recesses extending longitudinally along the tube[[,]] and ~~having a~~ are smoothly curved ~~bottom; and~~

a chromium oxide layer on the inner surface.

2. (Currently Amended) The tube according to claim 1, wherein each of the plurality of valleys or recesses are straight whilst extending longitudinally along the ~~cylinder~~ tube.

3. (Currently Amended) The tube according to claim 1, wherein each of the plurality of valleys or recesses ~~and each of the plurality of peaks~~ extend helically from an inlet end to an opposite end of said tube.

4. (Canceled)

5. (Original) The tube according to claim 1, wherein the amount of rare earth metals is 0.03-0.10%.

6. (Original) The tube according to claim 1, wherein the amount of silicon is 1.3-1.8%.

7. (Original) The metal tube according to claim 1, wherein the amount of nitrogen is 0.13-0.18%.

8. (Withdrawn) A hydrocarbon cracking furnace comprising a tube according to claim 1.

9. (Withdrawn) A method of using a metal tube comprising:
forming a tube according to claim 1;
placing the tube in a hydrocarbon cracking furnace; and
passing gas and liquid reactants through the tube while heating the tube to a temperature above 800°C.

10. (New) The tube according to claim 1, wherein the tube is conically shaped from inlet and to opposite end.